

FIG.1A

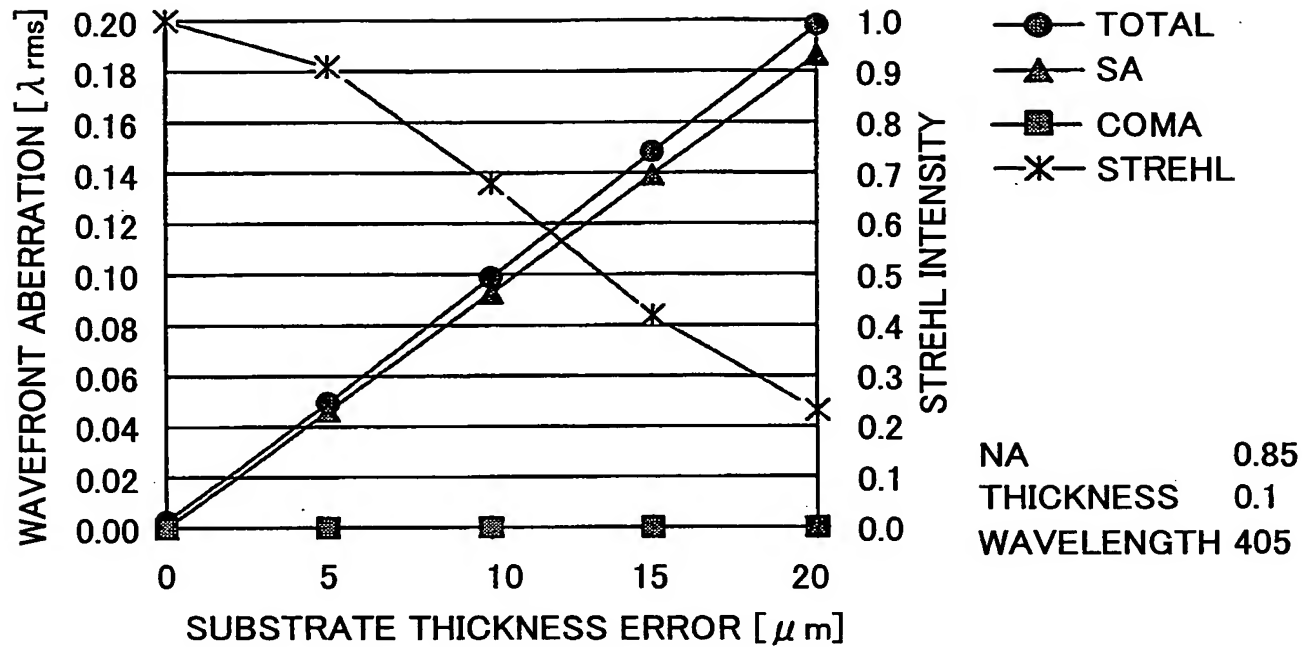


FIG.1B

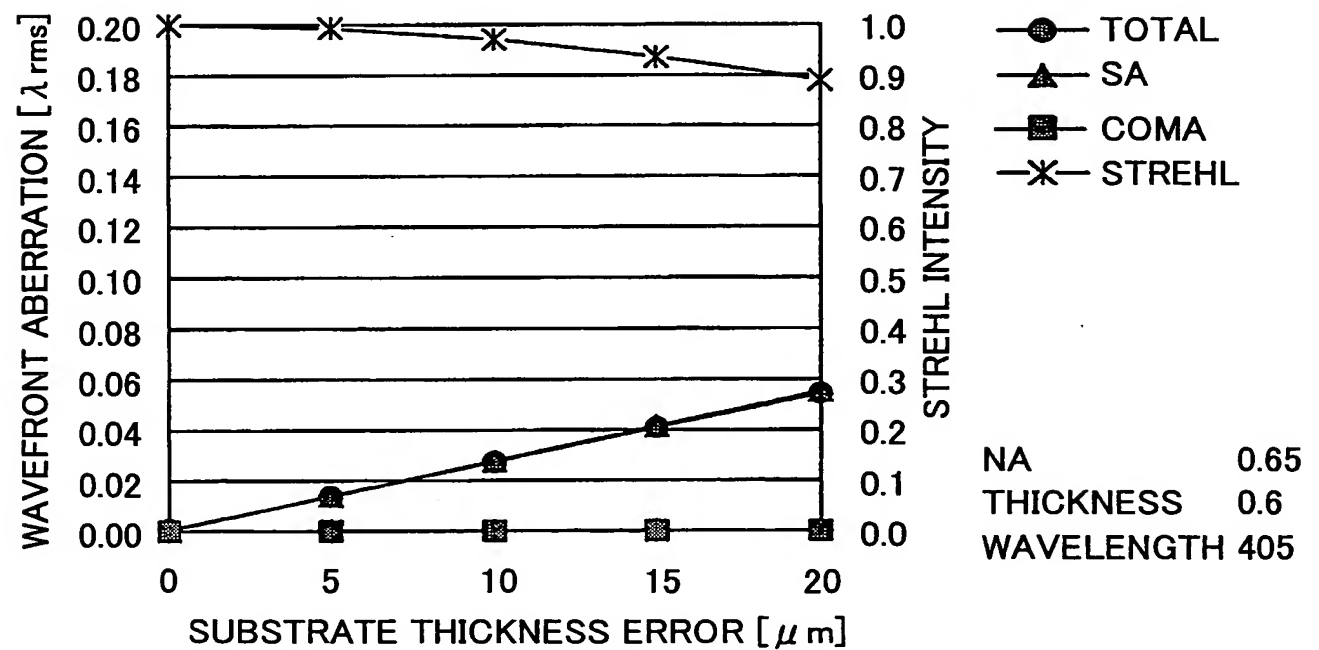


FIG.2A

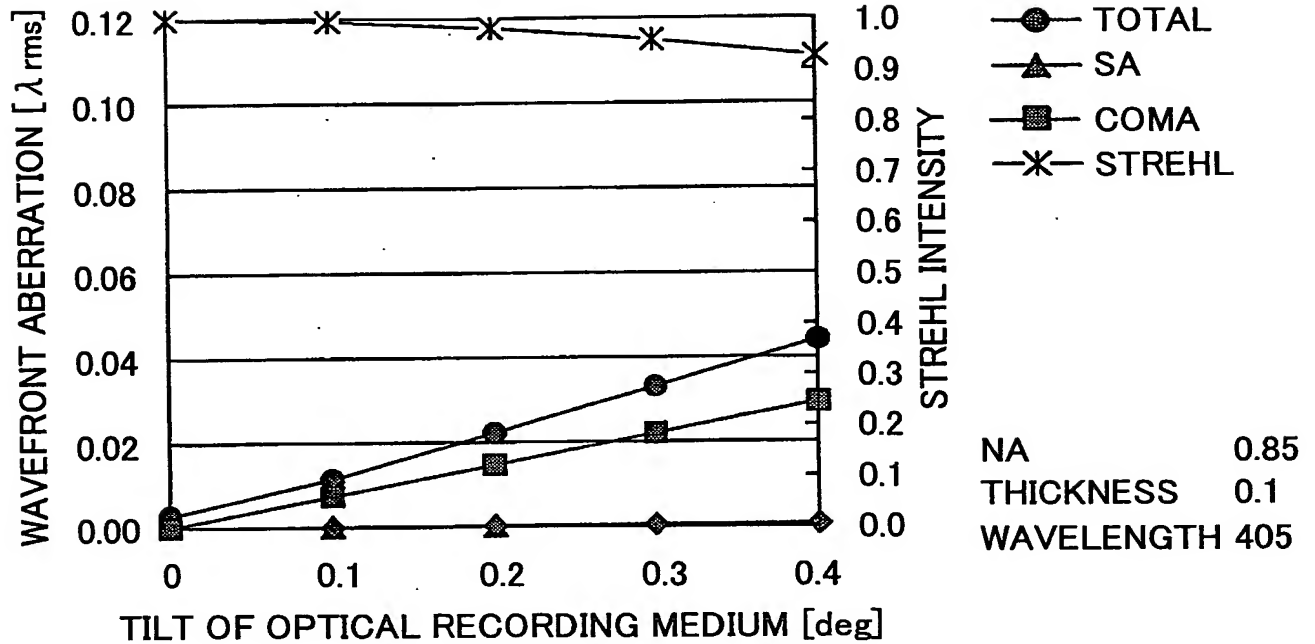


FIG.2B

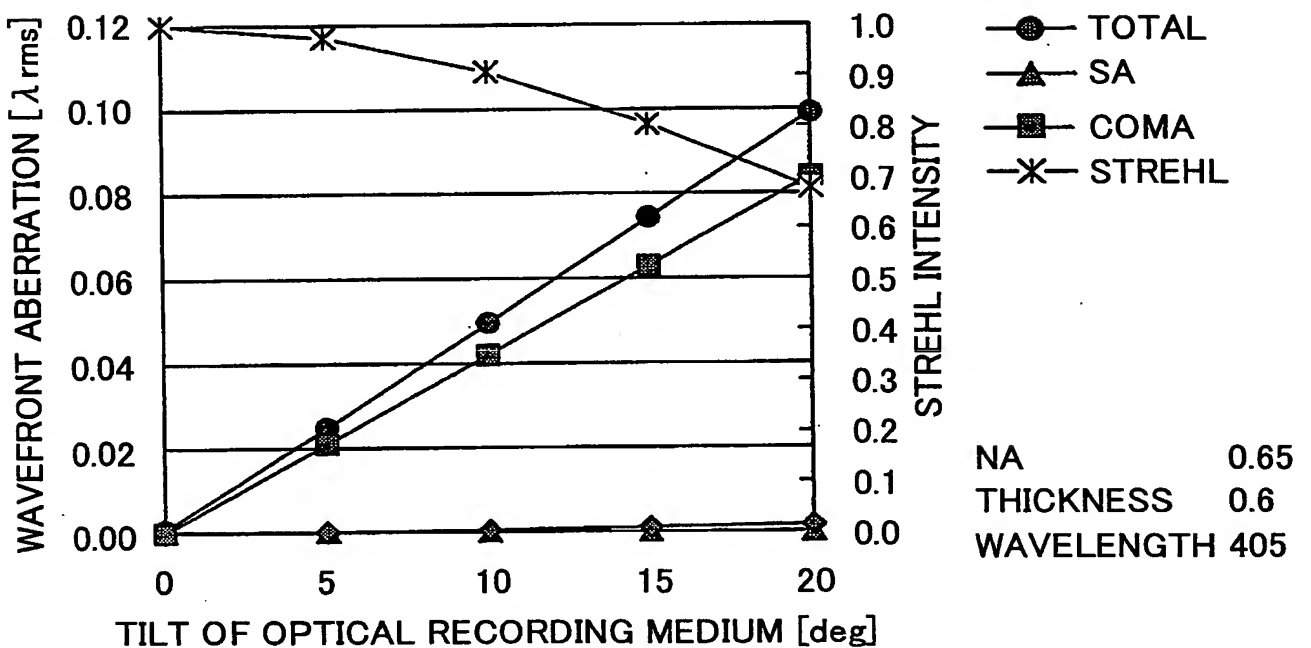


FIG.3

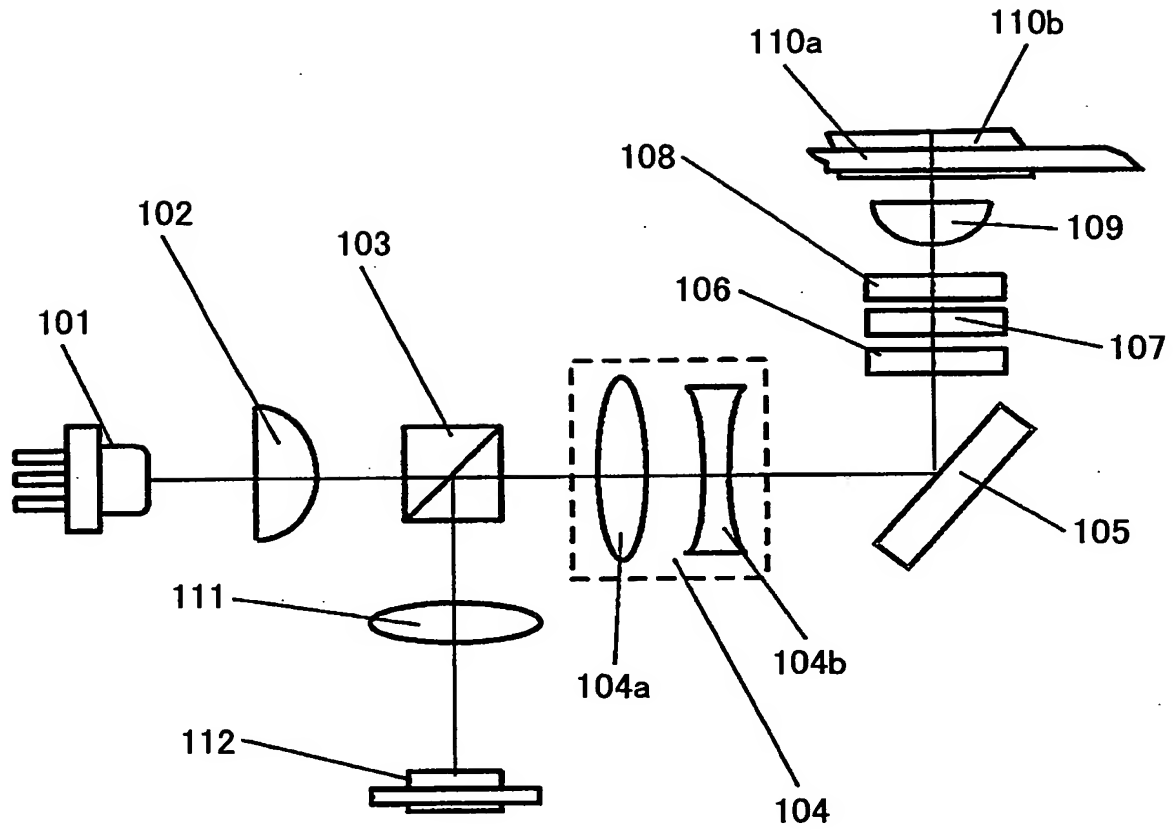


FIG. 4

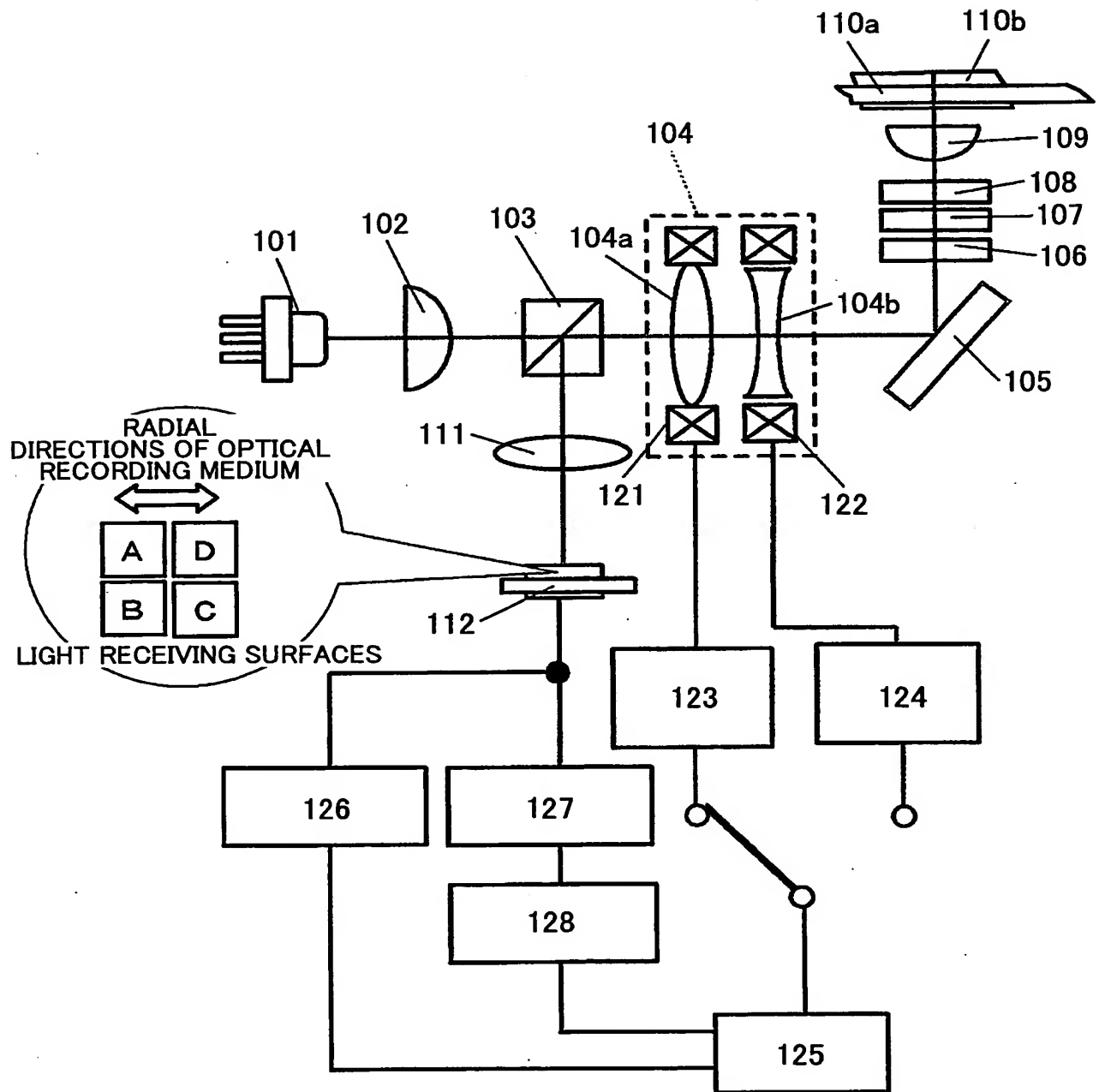


FIG.5

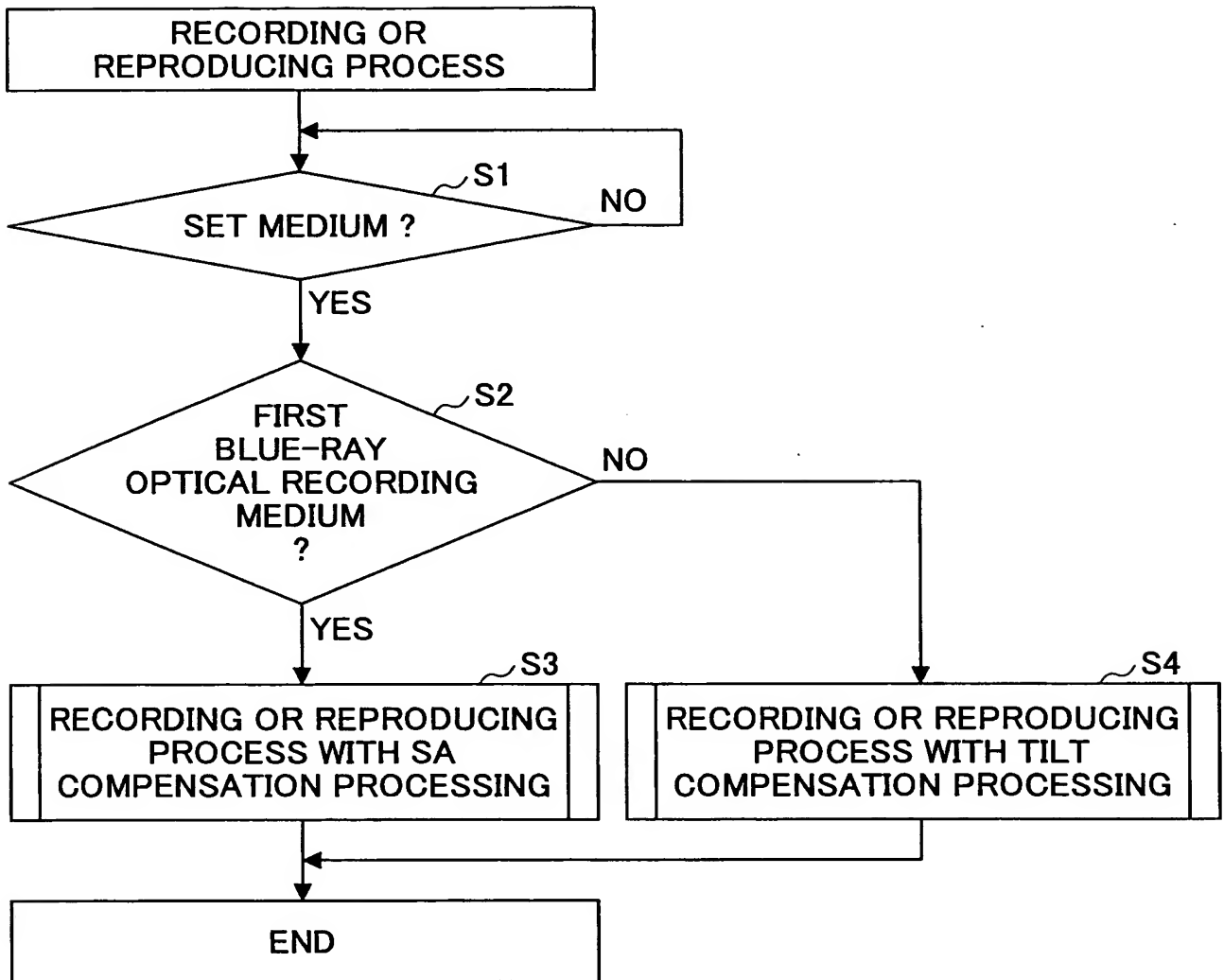
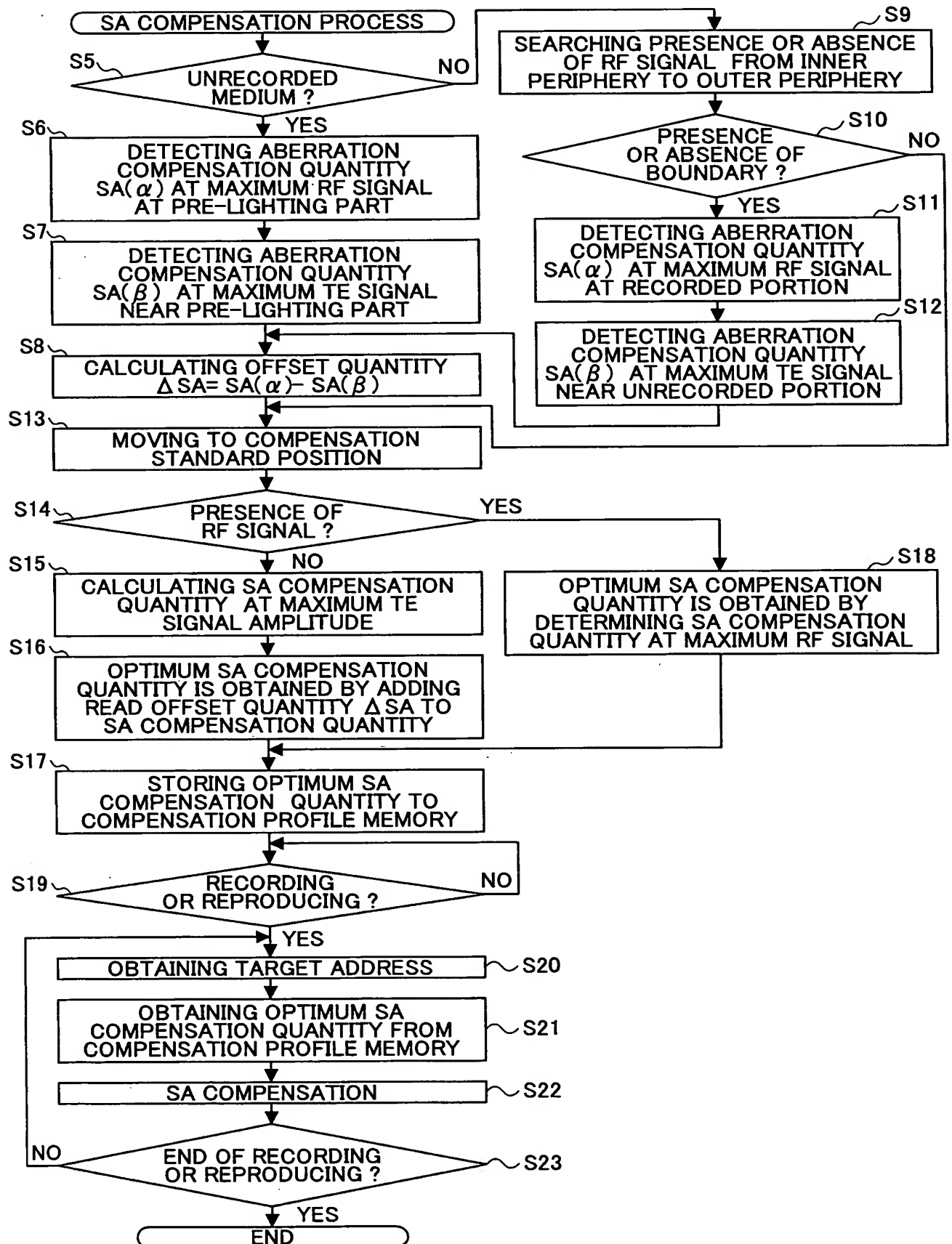


FIG.6



7/24

FIG.7A

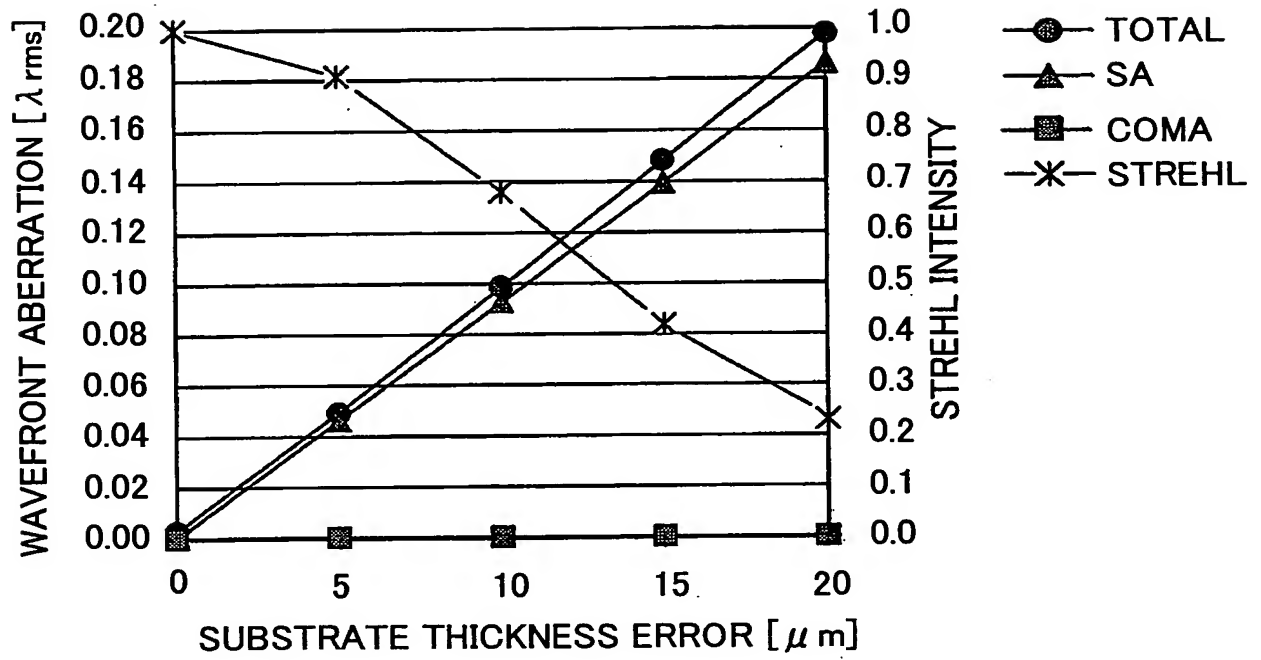
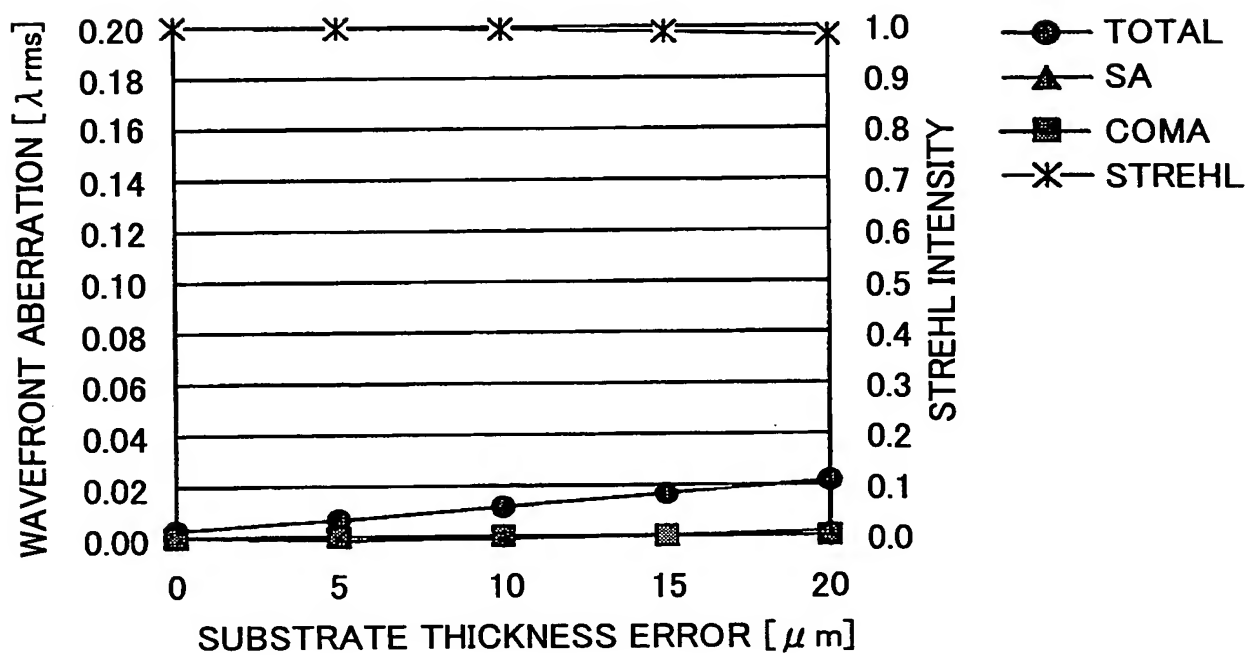


FIG.7B



8/24

FIG.8A

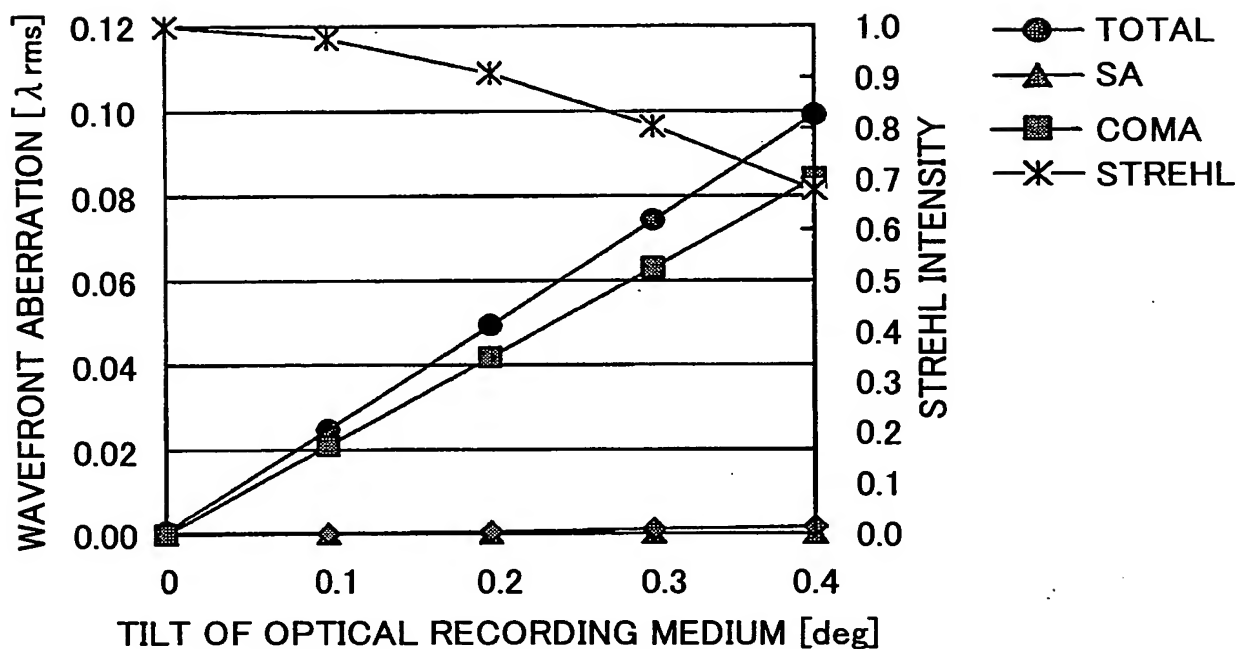
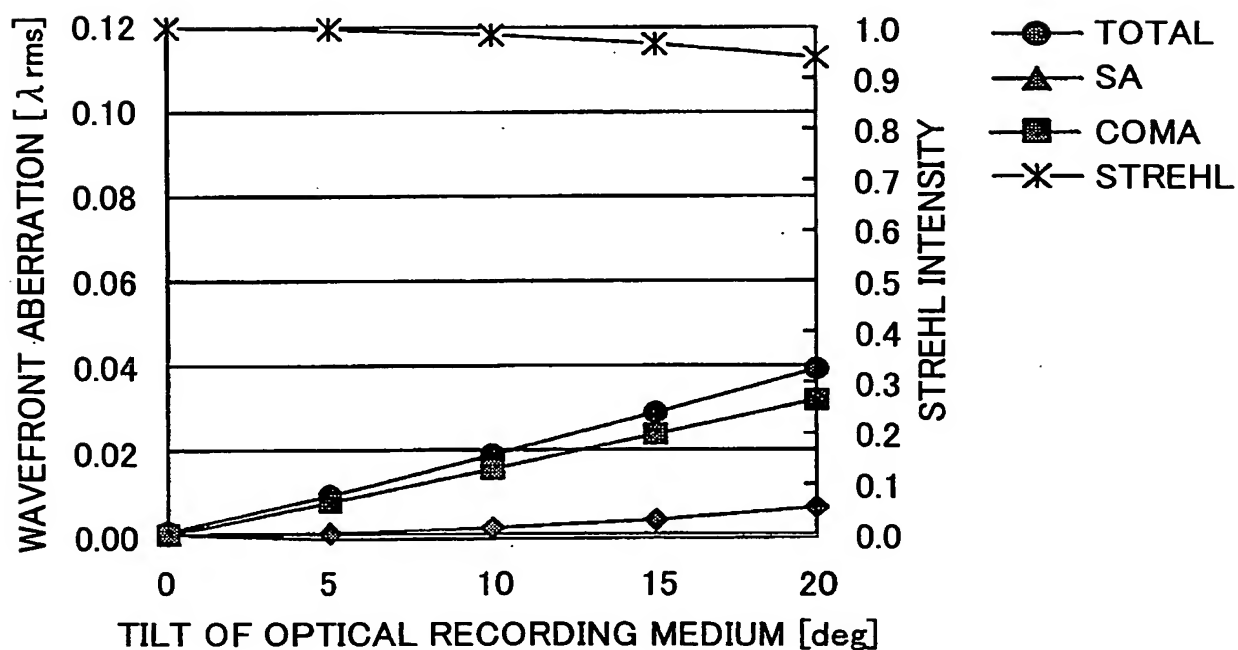


FIG.8B





9/24

FIG.9A

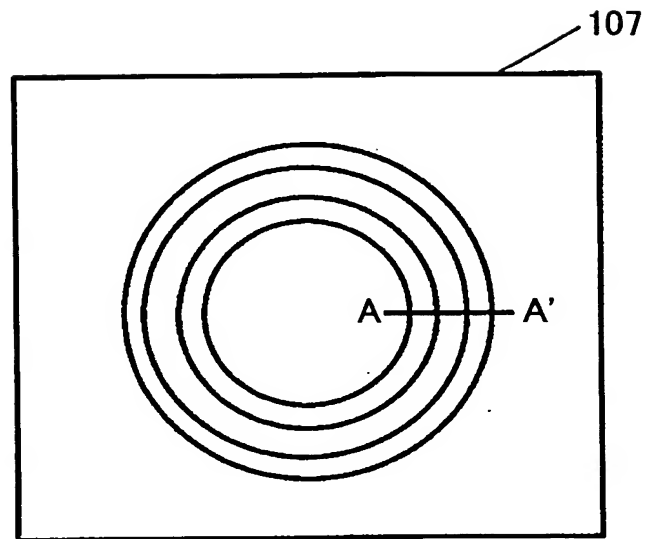


FIG.9B

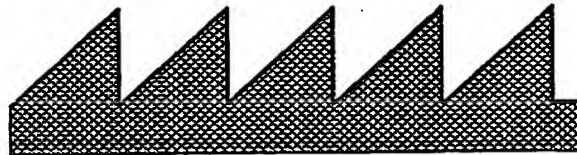


FIG.9C

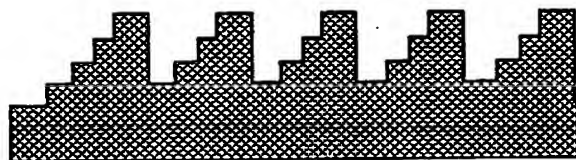


FIG.10A

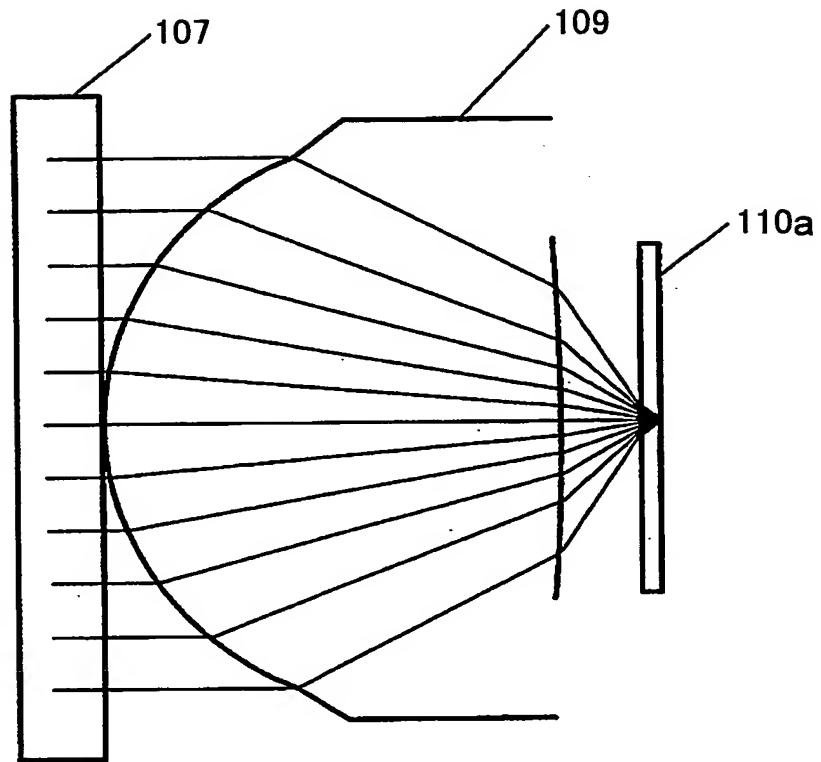
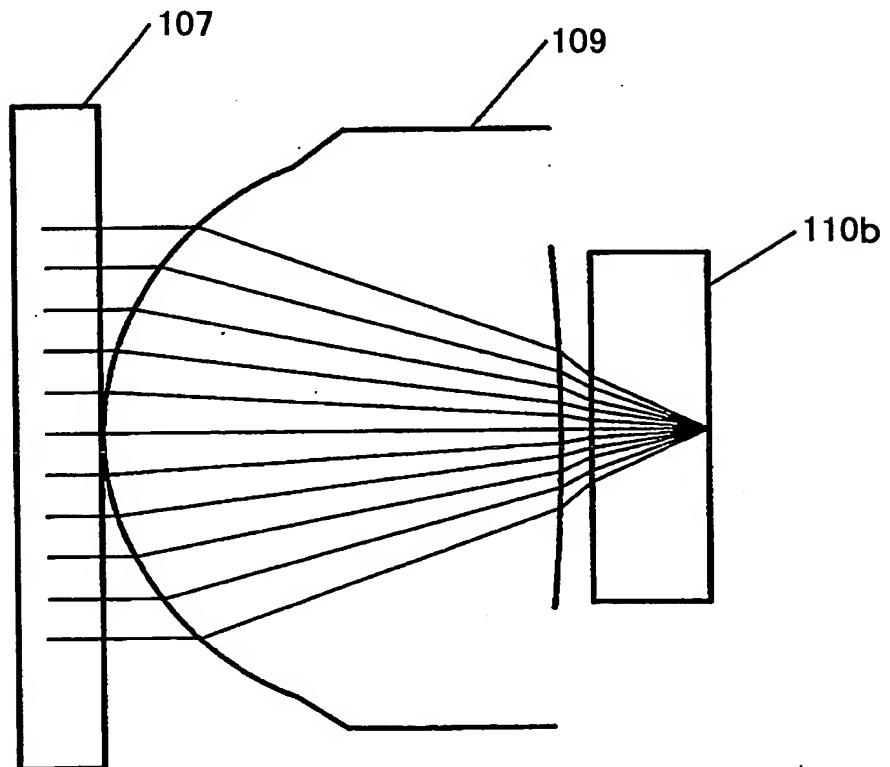


FIG.10B



11/24

FIG.11

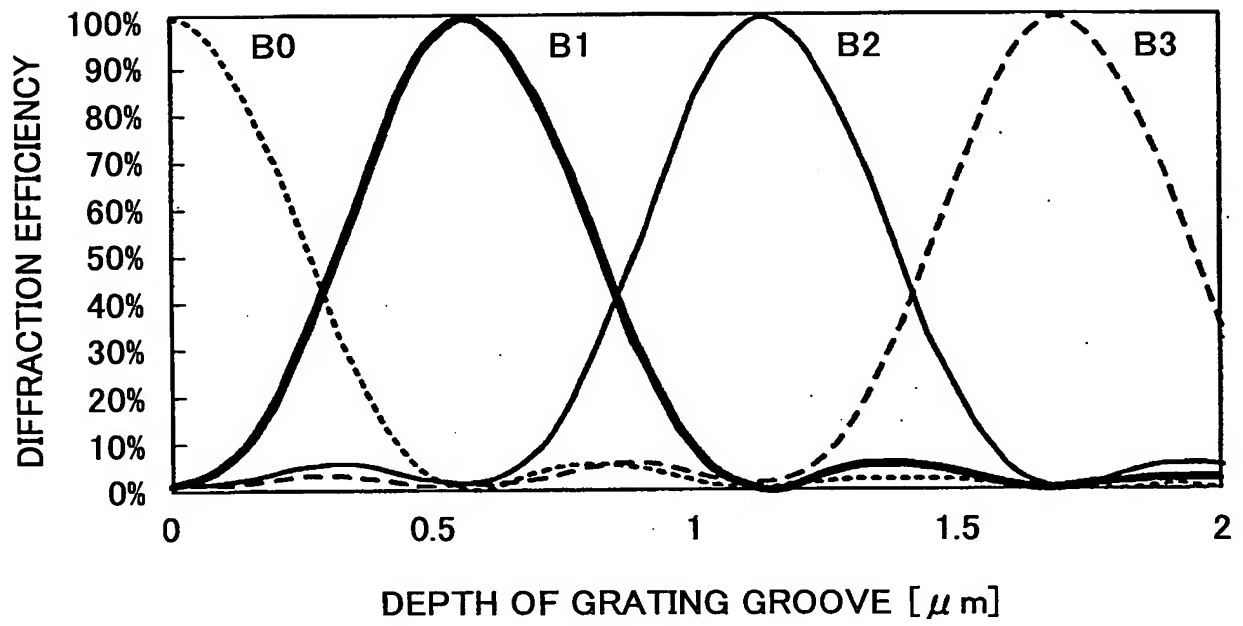


FIG.12A

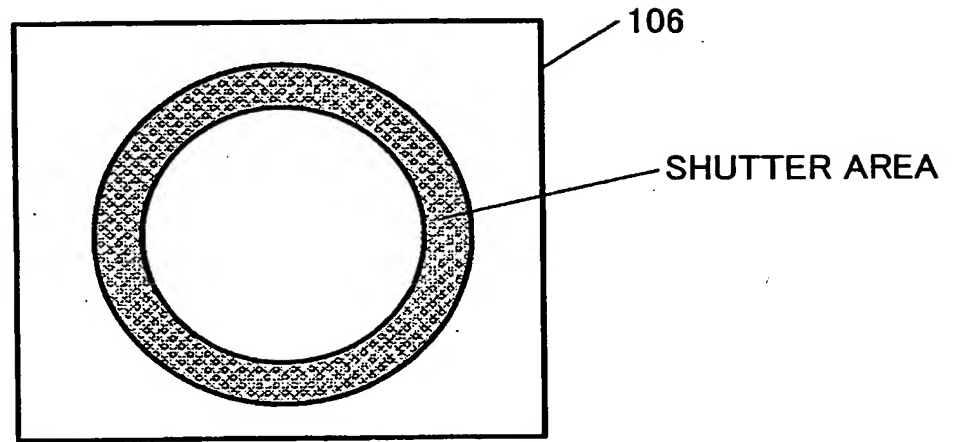
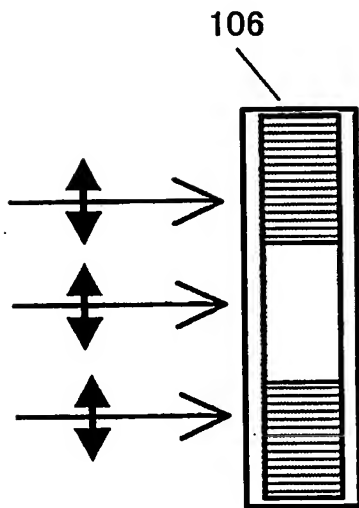
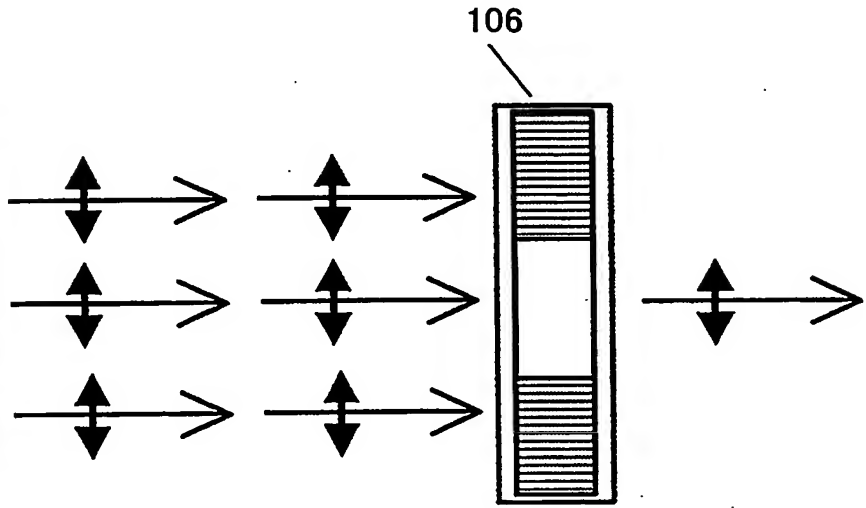


FIG.12B



LIQUID CRYSTAL: OFF

FIG.12C



LIQUID CRYSTAL: ON

FIG.13A

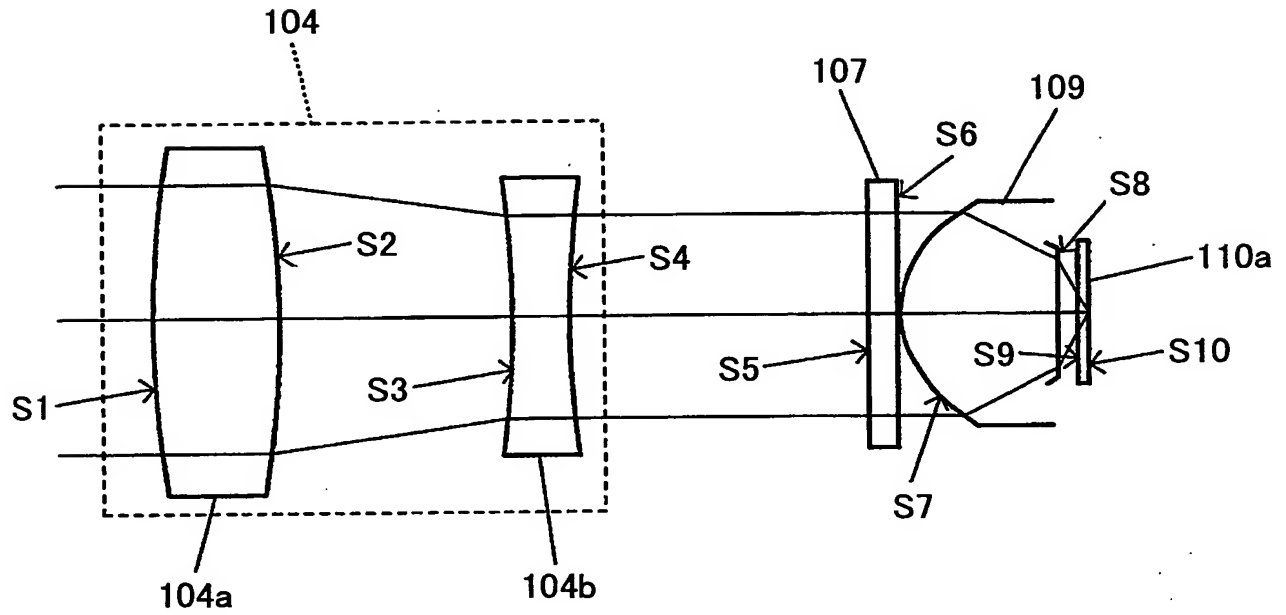


FIG.13B

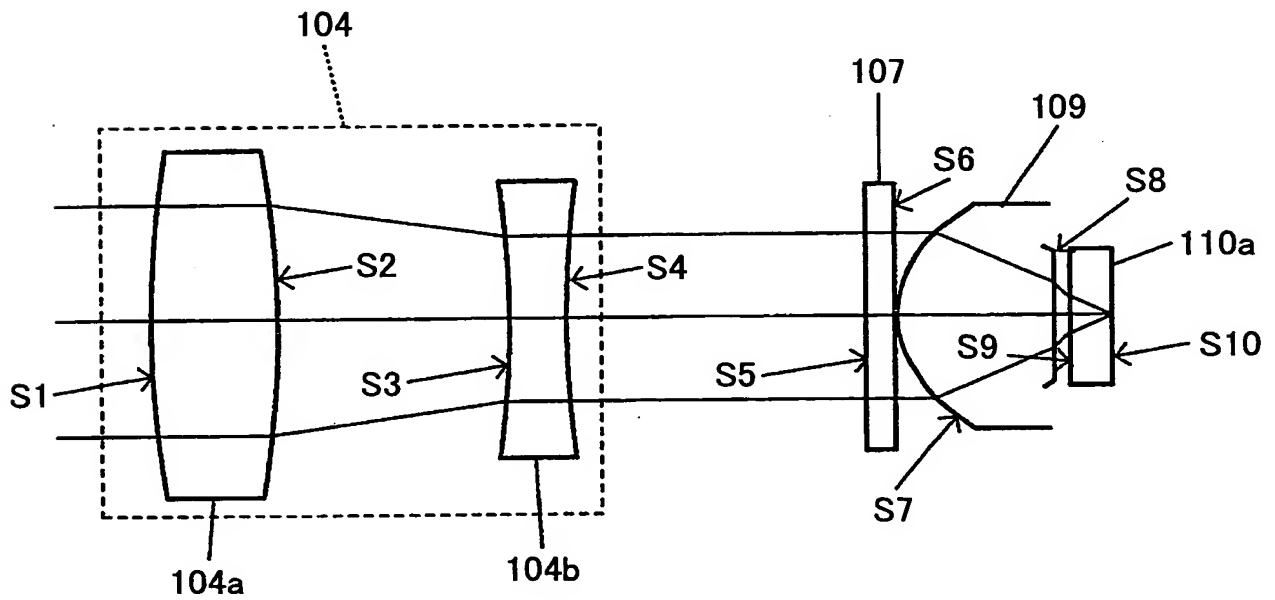


FIG.14

SURFACE	RDY (RADIUS OF CURVATURE)	THI (THICKNESS)	n(REFRACTIVE INDEX):405nm
OBJ	INFINITY	INFINITY	
S1	15.52	2.00	1.53
S2	-24.01	3.55	
S3	-15.67	1.00	1.80
S4	37.12	5.00	
S5 (STO)	INFINITY	0.6	1.72
S6	INFINITY	0.0	
	DIFFRACTION ORDER 0TH ORDER / 1ST ORDER (NOTE 1) DIFFRACTION SURFACE COEFFICIENTS C1: $8.0361 \times 10^{-3}$ C2: $-8.8252 \times 10^{-4}$ C3 : $-1.0901 \times 10^{-03}$ C4: $-6.8601 \times 10^{-5}$ C5: $-3.8433 \times 10^{-6}$		
S7	1.38	2.38	1.72
	ASPHERIC COEFFICIENTS OF LENS SURFACE K:-0.671973 A: $0.108576 \times 10^{-1}$ B: $0.887024 \times 10^{-3}$ C : $0.615641 \times 10^{-3}$ D: $0.305477 \times 10^{-3}$ E:- $0.235521 \times 10^{-3}$ F : $0.954484 \times 10^{-5}$ G: $0.403964 \times 10^{-4}$ H: $0.599180 \times 10^{-5}$ J : $-0.871198 \times 10^{-5}$		
S8	-4.24	-0.43/0.15 (NOTE 1)	
	ASPHERIC COEFFICIENTS OF LENS SURFACE K:15.973519 A:0.265234 B:-.165180 C : $-.762341 \times 10^{-1}$ D:0.119223 E: $0.102416 \times 10^{-1}$ F : $-.146044 \times 10^{-2}$ G:- $0.528214 \times 10^{-2}$ H:- $0.300544 \times 10^{-2}$ J : $0.292188 \times 10^{-2}$		
S9	INFINITY	0.1/0.6 (NOTE 1)	1.53
S10	INFINITY	0.0	
EPD:ENTRANCE PUPIL DIAMETER(mm)		3.0/2.3 (NOTE 1)	
WL:WAVELENGTH(nm)		405	

NOTE 1. 『/』 MEANS THE ORDER OF FIRST BLUE-RAY OPTICAL RECORDING MEDIUM /SECOND BLUE-RAY OPTICAL RECORDING MEDIUM.

FIG.15A

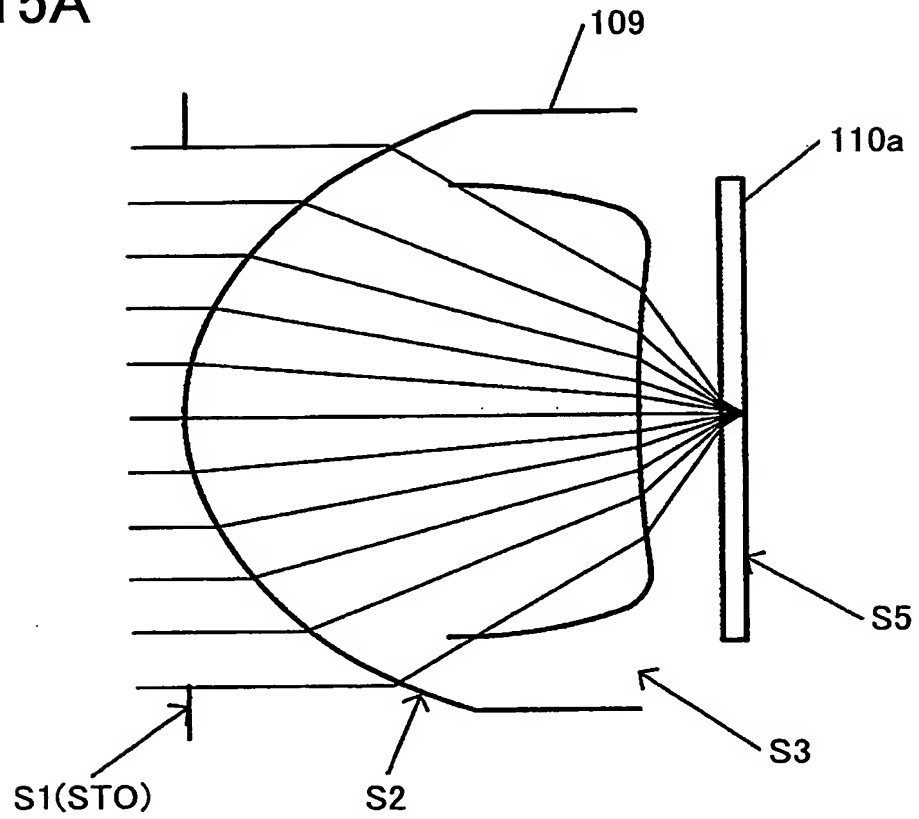


FIG.15B

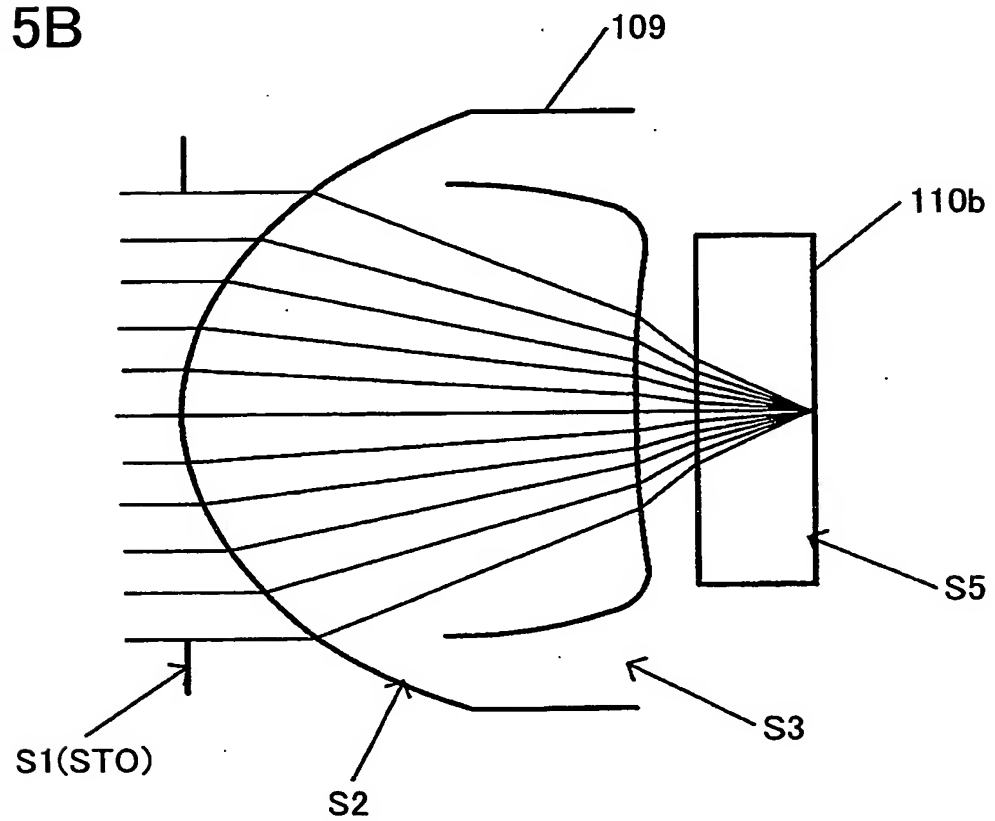


FIG.16

SURFACE	RDY (RADIUS OF CURVATURE)	THI (THICKNESS)	n(REFRACTIVE INDEX):405nm
OBJ	INFINITY	INFINITY	
S1 (STO)	INFINITY	0.6	
S2	1.38	2.38	1.72
	DIFFRACTION ORDER 0TH ORDER / 1ST ORDER (NOTE 1)		
	DIFFRACTION SURFACE COEFFICIENTS C1: $2.7423 \times 10^{-2}$ C2: $1.0502 \times 10^{-3}$ C3 : $-5.9391 \times 10^{-4}$ C4: $-3.7025 \times 10^{-4}$ C5: $1.2757(-4)$		
S3	ASPHERIC COEFFICIENTS OF LENS SURFACE K: $-6.6426 \times 10^{-1}$ A: $1.0604 \times 10^{-2}$ B: $2.1601 \times 10^{-3}$ C : $6.0889 \times 10^{-5}$ D: $4.8057 \times 10^{-4}$ E: $-7.7885 \times 10^{-5}$ F : $4.7808 \times 10^{-5}$		
	-4.80	-0.43/0.29 (NOTE 1)	
	ASPHERIC COEFFICIENTS OF LENS SURFACE K:12.516971 A:0.279855 B:-.141274 C : $-.250439 \times 10^{-1}$ D:0.108911 E:-.801930 $\times 10^{-1}$ F : $-.146045 \times 10^{-2}$ G:-.528214 $\times 10^{-2}$ H:-.300544 $\times 10^{-2}$ J : $0.292188 \times 10^{-2}$		
S4	INFINITY	0.1/0.6 (NOTE 1)	1.53
S5	INFINITY	0.0	
EPD:ENTRANCE PUPIL DIAMETER(mm)		3.0/2.3 (NOTE 1)	
WL:WAVELENGTH(nm).		405	

NOTE 1. 『/』 MEANS THE ORDER OF FIRST BLUE-RAY OPTICAL RECORDING MEDIUM /SECOND BLUE-RAY OPTICAL RECORDING MEDIUM.



FIG.17

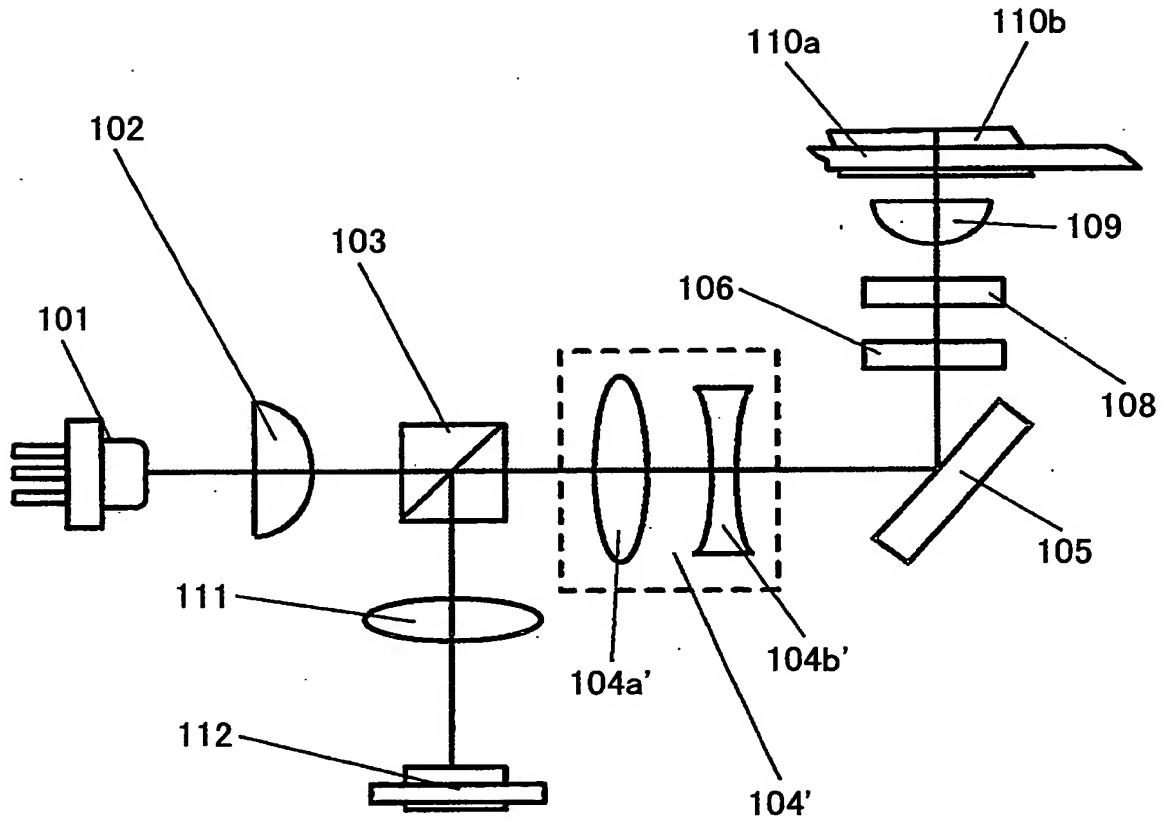


FIG.18

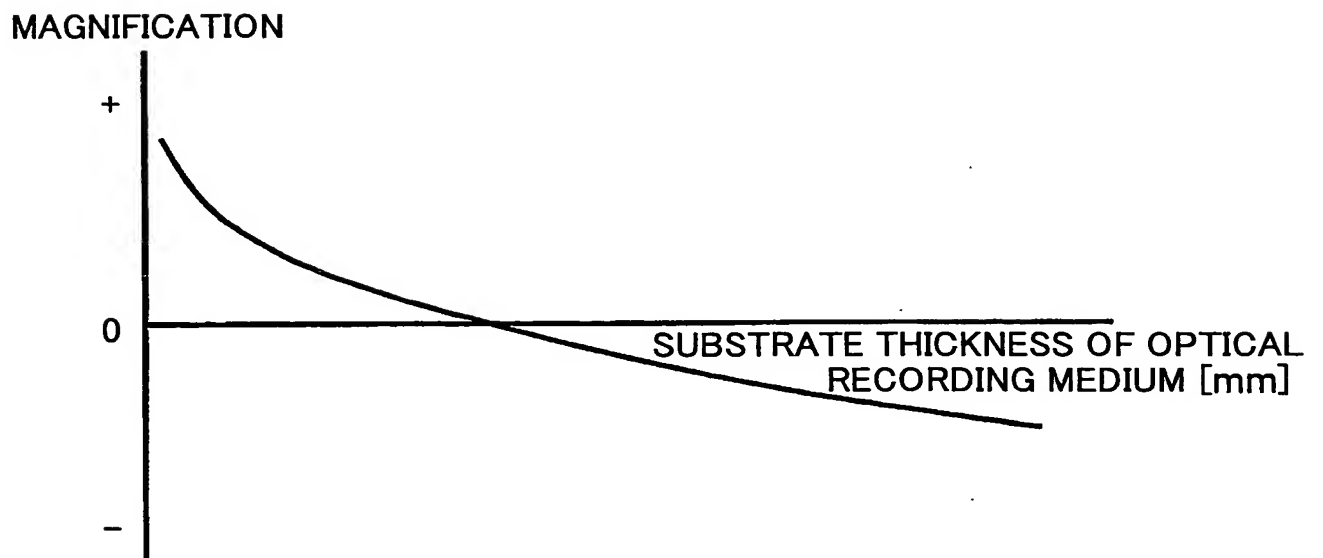


FIG.19A

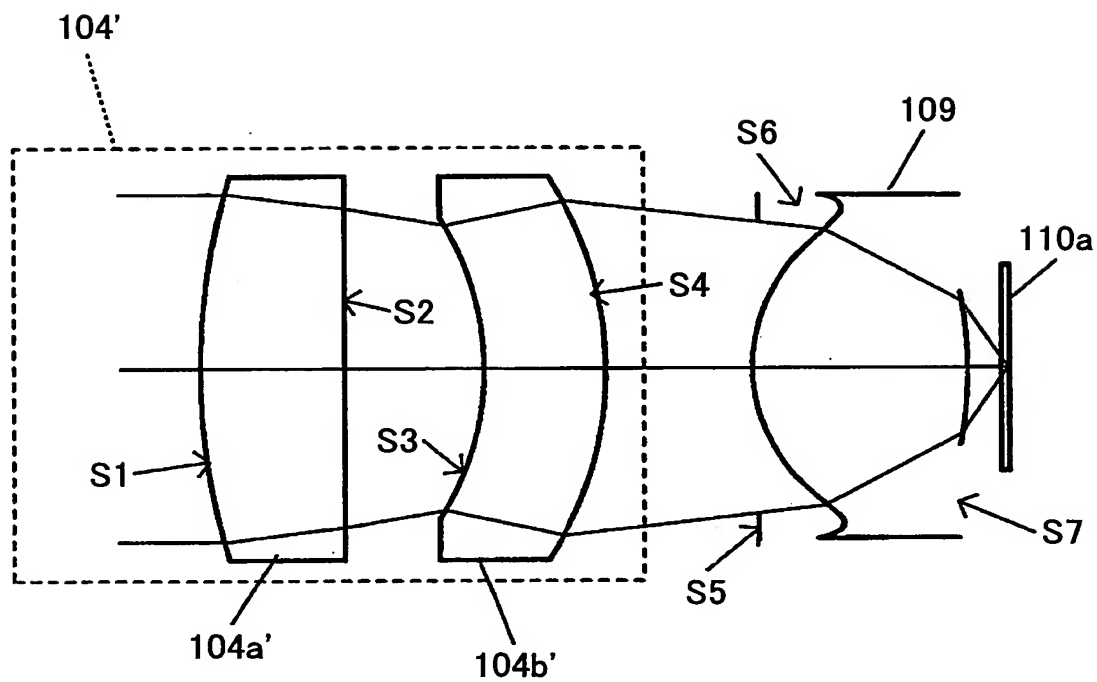


FIG.19B

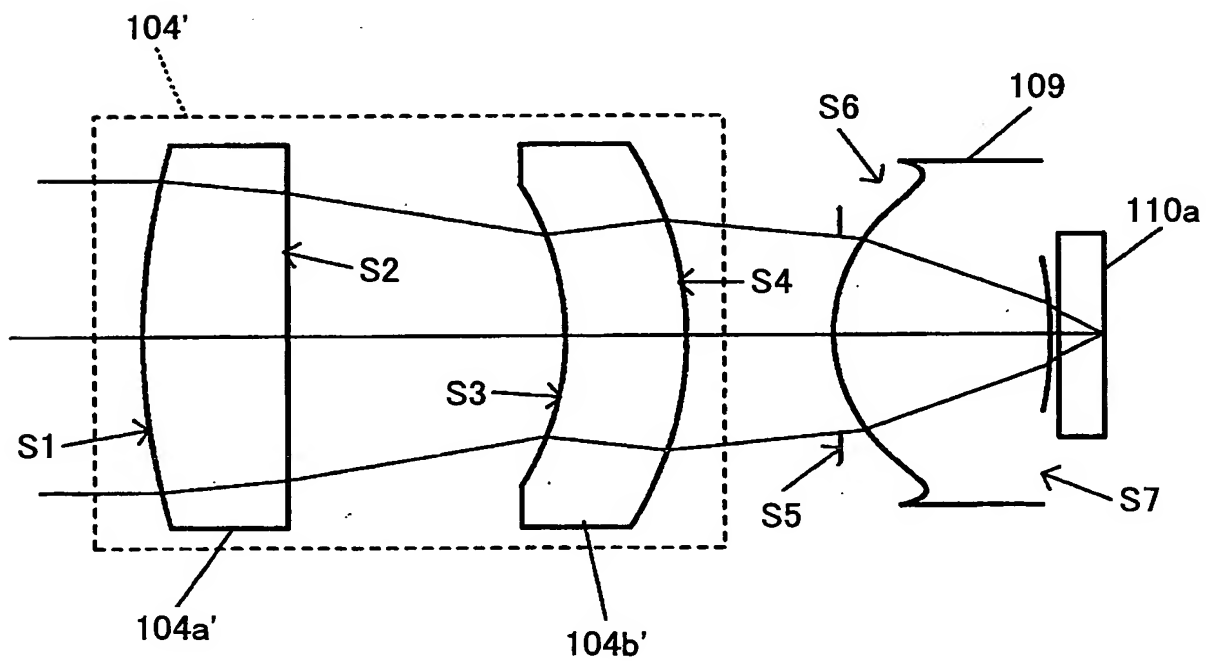


FIG.20

SURFACE	RDY (RADIUS OF CURVATURE)	THI (THICKNESS)	n(REFRACTIVE INDEX):405nm
OBJ	INFINITY	INFINITY	
S1	7.56	2.0	1.53
	ASPHERIC COEFFICIENTS OF LENS SURFACE K:0.972983 A: $0.371207 \times 10^{-3}$ B: $-0.478667 \times 10^{-4}$ C : $-0.901945 \times 10^{-5}$ D: $-0.814374 \times 10^{-6}$		
S2	40.91	2/4.1 (NOTE 1)	
	ASPHERIC COEFFICIENTS OF LENS SURFACE K:-76.180141 A: $-0.551113 \times 10^{-3}$ B: $-0.604159 \times 10^{-4}$ C : $-0.264014 \times 10^{-4}$ D: $0.307055 \times 10^{-7}$		
S3	-3.54	1.7	1.80
	ASPHERIC COEFFICIENTS OF LENS SURFACE K:-0.031141 A: $0.286777 \times 10^{-3}$ B: $-0.248176 \times 10^{-3}$ C : $-0.146269 \times 10^{-4}$ D: $-0.160400 \times 10^{-4}$		
S4	-4.35	0.0	
	ASPHERIC COEFFICIENTS OF LENS SURFACE K:-0.751196 A: $-0.557062 \times 10^{-4}$ B: $-0.818406 \times 10^{-4}$ C : $-0.451735 \times 10^{-4}$ D: $0.195625 \times 10^{-5}$		
S5 (STO)	INFINITY	0.6	1.72
S6	1.90	2.90	1.72
	ASPHERIC COEFFICIENTS OF LENS SURFACE K:-0.638807 A: $0.515357 \times 10^{-2}$ B: $0.536542 \times 10^{-3}$ C : $0.155822 \times 10^{-4}$ D: $0.693345 \times 10^{-5}$ E: $-0.144620 \times 10^{-4}$ F : $-0.464699 \times 10^{-7}$ G: $0.607353 \times 10^{-6}$ H: $0.816724 \times 10^{-7}$ J : $-0.863344 \times 10^{-7}$		
S7	-5.49	0.51/0.12 (NOTE 1)	
	ASPHERIC COEFFICIENTS OF LENS SURFACE K:27.747443 A:0.181893 B: $-0.209173$ C : 0.152146 D: $-0.292109 \times 10^{-1}$ E: $0.432555 \times 10^{-3}$ F : $-0.346960 \times 10^{-4}$ G: $-0.705877 \times 10^{-4}$ H: $-0.225917 \times 10^{-4}$ J : $0.123545 \times 10^{-4}$		
S8	INFINITY	0.1/0.6 (NOTE 1)	1.53
S9	INFINITY	0.0	
EPD:ENTRANCE PUPIL DIAMETER (mm)		3.8/2.3 (NOTE 1)	
WL:WAVELENGTH (nm)		405	

NOTE 1. 『/』 MEANS THE ORDER OF FIRST BLUE-RAY OPTICAL RECORDING MEDIUM /SECOND BLUE-RAY OPTICAL RECORDING MEDIUM.

FIG.21

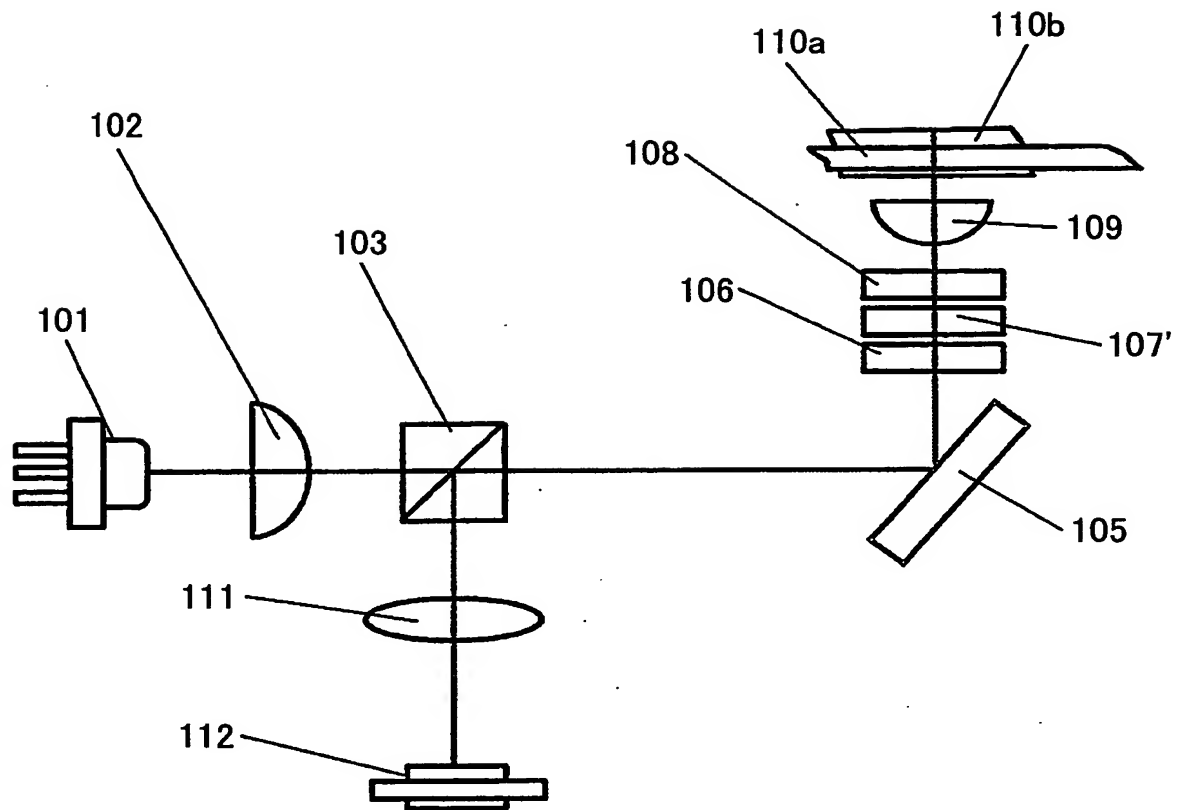
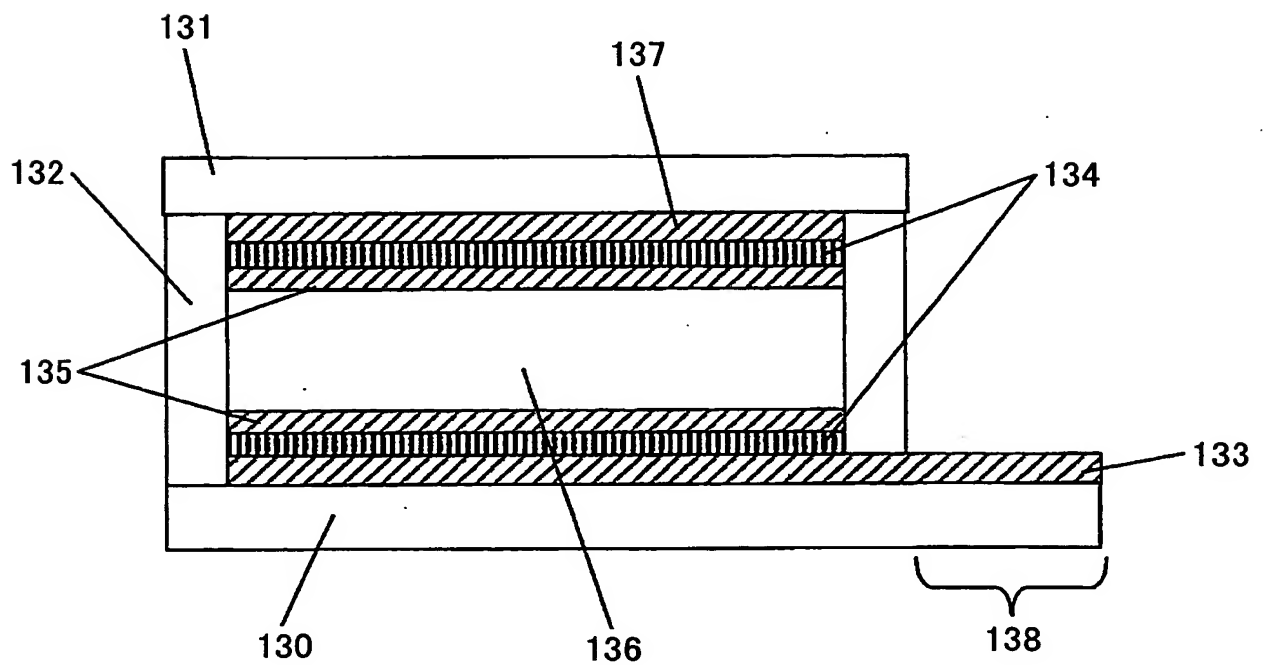


FIG.22



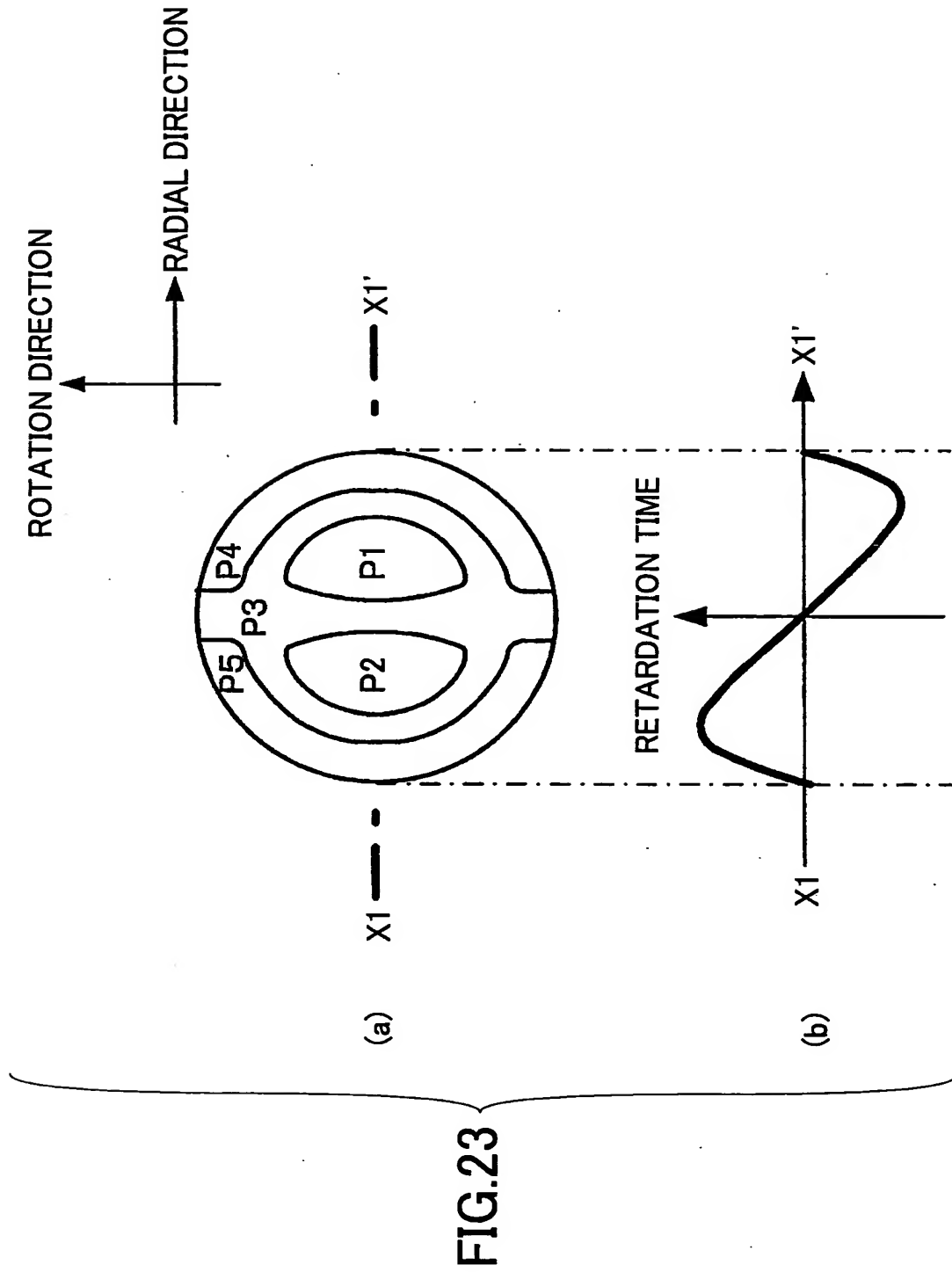
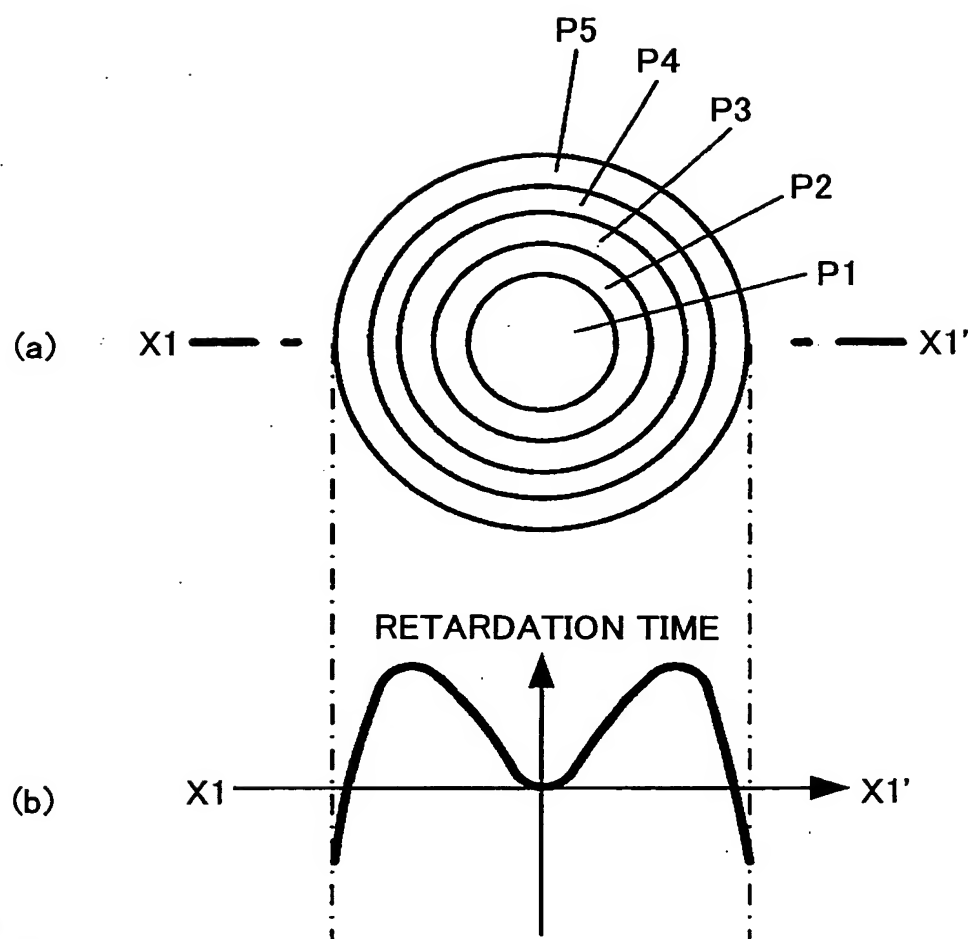


FIG.24



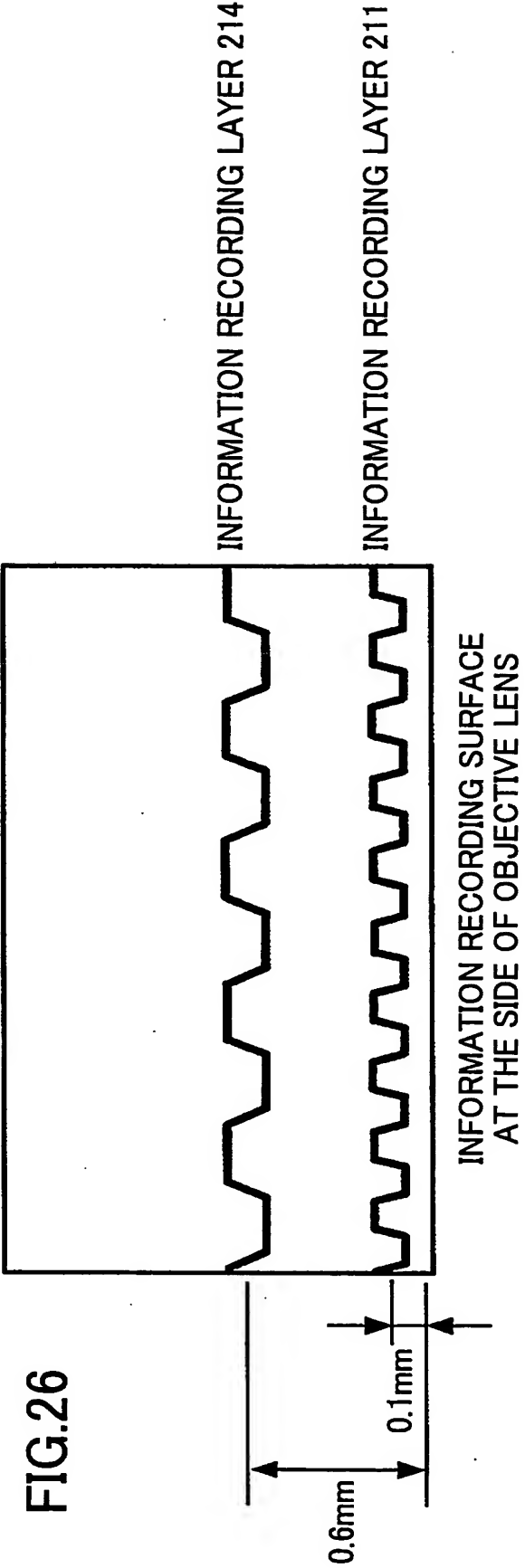
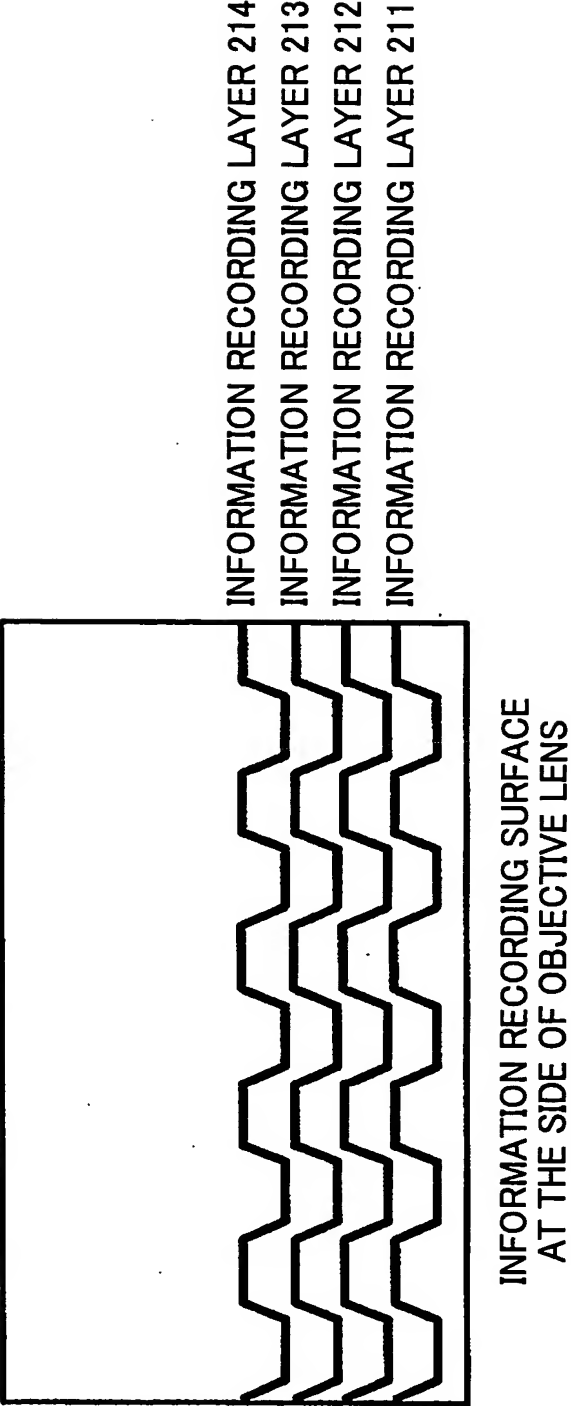


FIG.27

